

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A failure detecting device characterized by comprising:

notification receiving means for receiving, from at least one communication terminal of a communication partner, and outputting notification of both reception power of a signal transmitted from a main apparatus and transmission power of a signal transmitted to said main apparatus;

determining means for determining and outputting the reception power from said communication terminal and the transmission power to said communication terminal;

propagation loss calculating means for calculating bidirectional propagation losses between said communication terminal and main apparatus, from the two powers output from said notification receiving means and the two powers output from said determining means;

difference checking means for checking whether a difference between the bidirectional propagation losses falls within a predetermined allowable range; and

failure determining means for determining that a transmitter/receiver of at least one of said communication terminal and main apparatus has a failure, if said difference checking means determines that the difference falls outside the predetermined allowable range, and for identifying a transmitter or receiver that has a failure based on whether the difference falls outside the allowable range for all the communication devices, and whether a propagation loss of the propagation path to

said main apparatus is smaller than a propagation loss of a propagation path to each communication terminal.

2. (Currently Amended) The failure detecting device according to claim 1, characterized by further comprising a plurality of communication terminals,

wherein said notification receiving means receives, from each of said plurality of communication terminals of a communication partner, notification of both reception power of a signal transmitted from said main apparatus and transmission power of a signal transmitted to said main apparatus,

said determining means determines, for each communication terminal, the reception powers from said plurality of communication terminals and the transmission powers to said plurality of communication terminals,

said propagation loss calculating means calculates bidirectional propagation losses between each communication terminal and said main apparatus, from the two powers output from said notification receiving means and the two powers output from said determining means,

said difference checking means checks whether a difference between two of the propagation losses falls within a predetermined allowable range, and

said failure determining means determines that a transmitter/receiver transmitter or receiver of at least one of said communication terminal and main apparatus has a failure, if said difference checking means determines that the difference falls outside the predetermined allowable range.

3. (Currently Amended) The failure detecting device according to claim 2, characterized in that if said difference checking means determines that the difference falls outside the predetermined allowable range for all of said plurality of communication terminals, said failure determining means determines that a transmitter/receiver of said main apparatus has a failure.

4. (Currently Amended) The failure detecting device according to claim 2, characterized in that if said difference checking means determines that the difference falls outside the predetermined allowable range for some at least one of said plurality of communication terminals, said failure determining means determines that a transmitter/receiver transmitter or receiver of each of said communication terminals, which is found to fall outside the predetermined allowable range has a failure.

5. (Previously Presented) The failure detecting device according to claim 3, characterized in that if it is determined that a propagation loss of a propagation path to said main apparatus is smaller than a propagation loss of a propagation path to each communication terminal, said failure determining means determines that a transmitter of said main apparatus has failed, and, otherwise, said failure determining means determines that a receiver of said main apparatus has failed.

6. (Currently Amended) The failure detecting device according to claim 4, characterized in that if it is determined that a propagation loss of a propagation path to said main apparatus is smaller than a propagation loss of a propagation path to each communication terminal, said failure determining means determines that a receiver of a communication terminal found to fall outside the predetermined allowable range has failed, and, otherwise, said failure determining means determines that a transmitter of a

communication terminal found to fall outside the predetermined allowable range has failed.

7. (Previously Presented) The failure detecting device according to claim 1, characterized in that if it is determined that a propagation loss of a propagation path to said main apparatus is equal to a propagation loss of a propagation path to each of said at least one communication terminal, said failure determining means determines that said communication terminal and main apparatus are normal.

8. (Previously Presented) The failure detecting device according to claim 1, characterized by further comprising failure notifying means for notifying said communication terminal of a detected failure.